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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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QWEST COMMUNICATIONS INTERNATIONAL INC
LAW DEPT INTELLECTUAL PROPERTY GROUP
1801 CALIFORNIA STREET, SUITE 3800
DENVER, CO 80202

EXAMINER

ELALLAM, AHMED

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/668,652

Applicant(s)

JOHNSON ET AL.

Examiner

AHMED ELALLAM

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-7, 9-18, 20-26 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 9-18, 20-26 and 28-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 10-12 are objected to because of the following informalities: the phrase "signaling data" was indicated in the parent claim 9, as been a part of the hunt group. However, the phrase "signaling data is repeated in the dependent claims 10-12 without reference to the its antecedent. It should be clear if it is the same "signaling data" or different than the one indicated in claim 9. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 9-11, 13, 14 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al, US (6,069,890) in view of White et al, US (5,933,490). Hereinafter referred to as White'890 and White'490 respectively.

Regarding claim 1, with reference to figure 8, White'890 discloses a communication system comprising:

An Internet network 106, (claimed an IP-enabled communication network);

Art Unit: 2662

At least one remote site connected to the Internet, the remote site comprising:

- a plurality of subscribers 100,
- an end office switch 107 interconnecting the plurality of subscribers (claimed switch),
- a T1 trunk 108 connected to the switch 107,
- a gateway router 104 interfacing the T1 trunk and the communication network 106; and

at least one service site connected to the communication network 106, the service site comprising:

- a voice mail system 576 providing voice services,
- a switch 121 connected to the service platform,
- a T1 trunk 119 connected to the switch 121,
- a gateway router 116 interfacing the T1 trunk and the communication network 106.

The difference between Applicants invention and the White'890 reference is that the gateways interfaces a hunt group in lieu of T1 trunks 108 and 119.

However, White'490 discloses in the same field of endeavor, an Internet access plant 80 connected to a central office switch 52 via a hunt group of lines 82. See column 15, lines 6-13.

Therefore it would have been obvious to a person of skill in the art at the time the invention was made to have the T1 trunks of white'890 changed to the hunt group of White'490 so that polling of line availability can be carried out for

Art Unit: 2662

access to the communication network ensuring even call handling loads among attendants. The advantage would be the implementation of already available infrastructure in providing voice telephony through the Internet.

Regarding claim 2, White'490 with reference to figure 8, discloses a voice mail system 576. (Claimed the service platform comprise a voice mail platform).

Regarding claim 5, White'890 discloses assembling digitized voice packet to TCP/IP format to be carried over the Internet. See column 7, lines 12-38. (Claimed the communication network carries voice over IP (VoIP)).

Regarding claim 9, White'490 discloses a hunt group of lines 82, for modem polling. (Examiner interpreted the polling as the claimed signaling line carrying signaling data and the lines to be polled as the claimed plurality of voice communications lines).

Regarding claims 10 and 11, White'890 discloses that source gateway router converts voice and signaling to a TCP/IP packet over the data network 106. See column 8, lines 58-67 and column 9, lines 1-5.

Regarding claim 13, White'890 discloses software that provides compression decompression of voice information at terminal devices. See column 2, lines 43-57.

Regarding claim 14, White discloses that the source and destination gateway performs DS0 mapping to map individual channels across the data network. See column 7, lines 12-38.

Regarding claim 31, with reference to figure 8, White'890 discloses a communication system comprising:

Art Unit: 2662

An Internet network 106, (claimed an IP-enabled communication network);

At least one remote site connected to the Internet, the remote site comprising:

- a plurality of subscribers 100,
- an end office switch 107 interconnecting the plurality of subscribers (claimed switch),
- a T1 trunk 108 connected to the switch 107,
- a gateway router 104 (claimed wide area network access device) interfacing the T1 trunk and the communication network 106; and

at least one service site connected to the communication network 106, the service site comprising:

- a voice mail system 576 providing voice services,
- a switch 121 connected to the service platform,
- a T1 trunk 119 connected to the switch 121,
- a gateway router 116 (claimed at least one wide area network access device) interfacing the T1 trunk and the communication network 106.

The difference between Applicants invention and the White'890 reference is that the gateways interfaces a hunt group in lieu of T1 trunks 108 and 119.

However, White'490 discloses in the same field of endeavor, an Internet access plant 80 connected to a central office switch 52 via a hunt group of lines 82. See column 15, lines 6-13.

Art Unit: 2662

Therefore it would have been obvious to a person of skill in the art at the time the invention was made to have the T1 trunks of white'890 changed to the hunt group of White'490 so that polling of line availability can be carried out for access to the communication network ensuring even call handling loads among attendants. The advantage would be the implementation of already available infrastructure in providing voice telephony through the Internet.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over White'890 in view of White'490 as applied to claim 1 above, and further in view of Singh et al, US 2003/0165231.

Regarding claim 3, White'890 in view of White'490 discloses substantially all the limitations of claim 1, except they don't disclose voice platform for providing unified messaging.

However, Singh discloses a voice platform comprising unified messaging. See paragraph [0004].

Therefore it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to add the teaching of unified signaling along the voice mail service of White'890/White'490 so that access to messaging services in various media can be provided on a common platform. The advantage would be the ability of White'890/White'490 system to converge voice mail, e-mail, video messaging and the like within a common platform for easy access to the White subscribers.

Art Unit: 2662

4. Claims 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over White'890 in view of White'490 as applied to claim 1 above, and further in view of Benson et al, US (6,532,235).

Regarding claims 6, White'890 in view of White'490 discloses substantially all the limitations of the parent claim 1, except they does not disclose that the data network carries voice over frame relay (VoFR).

However, Benson with reference to figure 2, discloses a frame relay network 24 for carrying voice over frame relay. See column 2, lines 1-13.

Therefore, it would have been obvious to an ordinary person of skill in the art at the time the invention was made to make the data network of White'890/White'490 being a frame relay for carrying VoFR as disclosed by Benson so that fast voice packet delivery can be provided. The advantage would be the use of already established VoFR infrastructure in carrying voice messaging of White'890/White'490.

Regarding claim 7, White'890 in view of White'490 discloses substantially all the limitations of the parent claim 1, except it does not disclose that the data network carries voice over ATM (VoATM).

However, Benson discloses carrying voice over an ATM network. See column 3, lines 36-65.

Therefore, it would have been obvious to an ordinary person of skill in the art at the time the invention was made to make the data network of White'890/White'490 being an ATM network carrying VoATM similar to that taught by Benson so that already established ATM infrastructure can be used in

Art Unit: 2662

carrying the voice messaging of White'890/White'490. The advantage would be cost reduction in implementing the voice telephony of White'890/White'490 network.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over White'890 in view of White'490 as applied to claim 9 above, and further in view of Nguyen et al, US 2002/0016926.

Regarding claim 12, White'890 in view of White'490 discloses substantially all the limitations of the parent claim 1, except they don't disclose that each gateway implements a tunneling scheme with at least one gateway at a different site to exchange signaling data.

However, Nguyen discloses that all communications between gateways are done via IP tunnels using tunneling protocols. See abstract, and paragraph [0039].

Therefore, it would have been obvious to an ordinary person of skill in the art at the time the invention was made to use the tunneling protocols taught by Nguyen communicating between the gateways of White'890/White'490 so that secure communication can be provided for the subscribers of White'890/White'490 network. The advantage would be the avoidance of the expense in maintaining leased lines by using encrypted messages to securely use the Internet 106.

Art Unit: 2662

6. Claims 15, 16, 21-26, 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art, Figure 1, page 1, lines 6-17, page 4, lines 18-25, and page 5, lines 1-22 over White et al, US (5,933,490) and further in view of White et al US (6,069,890).

Regarding claims 15, 16, 23, 28 and 32, with reference to figure 1 of prior art, prior art discloses a communication system 20 for transmitting audible messages comprising:

A locality of subscribers unit 28;

A switch 30 (hereinafter first switch) interconnecting the subscribers units; the switch routing traffic outside of the locality of subscriber units over at least multi-line hunt group 26 connected to the switch; the multi-line hunt group including a plurality of voice communication lines and a signaling line carrying signaling data;

The admitted prior art does not disclose a gateway (or wide area network access device as in claim 32) in communication with the multi-line hunt group and an IP based communication network, and the gateway converting voice information received over the hunt group to a data format acceptable by the communication network.

However, with reference to figure 7, White'490 in the same field of endeavor discloses an ISP 80 (claimed wide area network access device as in claim 32) in connection with the Internet 90, and a hunt group 82. See column 15, lines 6-13.

Art Unit: 2662

Therefore, it would have been obvious to a person of skill in the art at the time the invention was made to have the ISP of White'490 in connection with the hunt group of admitted prior art in the same manner as taught by White'490 so that voice services can be carried over the Internet using already existing hunt group infrastructure.

The admitted prior art does not disclose converting voice and signaling received over the hunt group lines.

However, White'890 discloses converting voice and signaling to a TCP/IP packet over the data network 106 using a gateway router104. See column 8, lines 58-67 and column 9, lines 1-5.

Therefore, it would have been obvious to a person of skill in the art at the time the invention was made to have the conversion method of White '890 used in the ISP of White'490 so that the admitted prior art voice services can be extended using the Internet. The advantage would be the provisioning of extended voice services using the Internet while taking advantage of the already established hunt group infrastructures.

Regarding claim 21, in addition to the limitation indicated above with reference to claim 15, White'890 further discloses software that provides compression decompression of voice information at terminal devices. See column 2, lines 43-57.

Therefore it would have been obvious to an ordinary person of skill in the art, to provide the compression/decompression mechanism disclosed by White'890 implemented in the gateways of the admitted prior art/White'490 so

Art Unit: 2662

that the bandwidth capacity of prior-art/White'890/White'490 can be increased.

The advantage would be more accommodation of subscribers requesting voice services in the network of prior-art/White'890/White'490.

Regarding claim 22, in addition to the limitation indicated above with reference to claim 15, White'890 further discloses that source and destination gateways performs DS0 mapping to map individual channels across the data network. See column 7, lines 12-38.

Therefore it would have been obvious to an ordinary person of skill in the art, to provide the DS0 mapping White'890 implemented in the gateways of the admitted prior art/White'490 so that that voice carried over the internet in the network of prior-art/White'890/White'490 can be recovered to its analogue form.

Regarding claim 24, Prior art does not disclose receiving formatted information over a data network and reformatting the data to its original form to be sent to a multi-line hunt group.

However, and in addition to the limitations indicated with reference to claim 23, White'890 with reference to figure 8, further discloses receiving the TCP/IP packets (claimed formatted information) over the Internet 106, and reformatting the TCP/IP into the original format and a T1 (119) connection the switch 121. a voice mail system 576. See column 8, lines 58-67 and column 9, lines 1-5.

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to implement the TCP/IP gateway teaching of white'890 applied in the prior-art /White'490 system so the system of

Art Unit: 2662

prior-art/White'890/White'490 can accommodate PSTN services using the Internet. The advantage would be the provisioning of intelligent PSTN services over the Internet, and cost reduction that is accompanied with its use

Regarding claim 25, the admitted prior art discloses a service platform comprising a voice mail platform.

Regarding claim 26, Prior art discloses a unified messaging platform, see page 5, lines 16-22.

7. Claims 17 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of White'890/White'490 as applied to respective parent claims 15 and 23 above, and further in view of Benson et al, US (6,532,235).

Regarding claims 17 and 29, the admitted prior art in view of White'890/White'490 discloses substantially all the limitations of the respective parent claims 15 and 23, except they does not disclose that the data network carries voice over frame relay (VoFR).

However, Benson with reference to figure 2, discloses a frame relay network 24 for carrying voice over frame relay. See column 2, lines 1-13.

Therefore, it would have been obvious to an ordinary person of skill in the art at the time the invention was made to make the data network of prior-art/White'890/White'490 being a frame relay for carrying VoFR as disclosed by Benson so that fast voice packet delivery can be provided. The advantage would

Art Unit: 2662

be the use of already established VoFR infrastructure in carrying voice messaging of prior-art/White'890/White'490 network.

8. Claims 18 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of White'890/White'490 as applied to respective parent claims 15 and 23 above, and further in view of Benson et al, US (6,532,235).

Regarding claims 18 and 30, the admitted prior art in view of White'890/White'490 discloses substantially all the limitations of the respective parent claims 15 and 23, except they don't disclose that the data network carries voice over ATM (VoATM).

However, Benson discloses carrying voice over an ATM network. See column 3, lines 36-65.

Therefore, it would have been obvious to an ordinary person of skill in the art at the time the invention was made to make the data network of prior-art/White'890/White'490 being an ATM network carrying VoATM similar to that taught by Benson so that already established ATM infrastructure can be used in carrying the voice messaging of prior-art/White'890/White'490. The advantage would be cost reduction in implementing the voice telephony of prior-art/White'890/White'490 network since the already infrastructure of hunt groups could be used.

Art Unit: 2662

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of White'890/White'490 as applied to claim 15 above, and further in view of Nguyen et al, US 2002/0016926.

Regarding claim 20, the admitted prior art in view of White'890 /White'490 discloses substantially all the limitations of the parent claim 15, except they don't disclose that the gateway implements a tunneling scheme with at least one gateway at a different site to exchange signaling data.

However, Nguyen discloses that communications between gateways are done via IP tunnels using tunneling protocols. See abstract, and paragraph [0039].

Therefore, it would have been obvious to an ordinary person of skill in the art at the time the invention was made to use the tunneling protocols taught by Nguyen communicating between the gateways of prior-art/White'890/White'490 so that secure communication can be provided for the subscribers of prior-art/White'890/White'490 network. The advantage would be the avoidance of the expense in maintaining leased lines by using encrypted messages to securely use the Internet 106.

Response to Arguments

10. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2662


Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (703) 308-6069. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM
Examiner
Art Unit 2662
June 14, 2004


JOHN PEZZLO
PRIMARY EXAMINER